



R&J Measurement
The Producer of High Quality Measuring
Instruments

MAG-ST100

THE COMPUTERIZED MEASURING SYSTEM DESIGNED TO MEASURE THE
MAGNETIC PROPERTIES OF THE HARD MAGNETIC COMPOSITES



The computerized measuring system designed to measure the resultant magnetic properties of the integrated samples made of the hard magnetic composites with both homogeneous and heterogeneous properties is the computer supported station ensuring a fully automated measuring process. The MAG-ST100 system fulfills the requirements of IEC404-5 Standard.

The magnetic properties can be measured in the range of $-1\ 600\text{kA/m} \div +1\ 600\text{kA/m}$.

The usage of the measuring system resolves into the data input of measurement's and measuring head's parameters from the computer keyboard.

The MAG-ST100 system provides the opportunity of a tabular and graphic presentation of the obtained data, which can be presented by means of:

- monitor,
- printer or plotter.

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www.rjmeasurement.com.pl

page 1 of 5



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1.EQUIPMENT

The MAG-ST100 system contains:

- PC computer AMD ATHLON XP 2 GHz, HDD 120GB, FDD 1.44MB, RAM 512 MB, 6*USB2.0, 2*RS232, GEFORCE 128MB,
- CDRW or DVDRW recorder,
- PC monitor 17" or LCD 19",
- Laser printer,
- anti-disturbing filter,
- connections cable,
- SF2 electromagnet,
- EPS100 power supply,
- WB10 fluxmeter,
- the printer table and compounded of the table,
- CD ROM with installation software,
- DTR – 2 pieces.

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2. THE MAG-ST100 SYSTEM PROVIDES MEASURING AND DETERMINATION OF:

- | | | |
|----------------------------------|---------------|---------------------|
| • demagnetisation characteristic | $B = f(H)$ | |
| • demagnetisation characteristic | $J = f(H)$ | |
| • remanence | B_r | [T] |
| • remanence | $B_r J$ | [T] |
| • coercive field strength | H_c | [A/m] |
| • coercive field strength | $H_c J$ | [A/m] |
| • energy | $HB = f(H)$ | [J/m ³] |
| • energy | $jHB = f(H)$ | [J/m ³] |
| • max. energy | $(HB)_{max}$ | [J/m ³] |
| • max. energy | $(jHB)_{max}$ | [J/m ³] |
| • reverse permeability | μ_r | |
| • permeability | μ | |
- static hysteresis loop for setting:
 - magnetic induction,
 - magnetic field strength,with full description of the parameters
 - the set of hysteresis loops for different values of polarization and magnetic field strength with full description of the parameters for each data point
 - final setting of obtained results.

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3. THE PARAMETERS OF MAGNETIC MEASUREMENTS

- the range of induction B [T] (0.005÷3)
- the range of magnetic field strength H [kA/m](-1 600 ÷ +1 600)
- accuracy of magnetic measurement B [%] 1.5
- accuracy of magnetic field strength H [%] 1.5
- minimal resolution of magnetic flux measurement [μ Wb] 0.8
- drift of magnetic flux measurement [μ Wb] ≤ 1
- the range of magnetic flux measurement [Wb] 0÷2.5

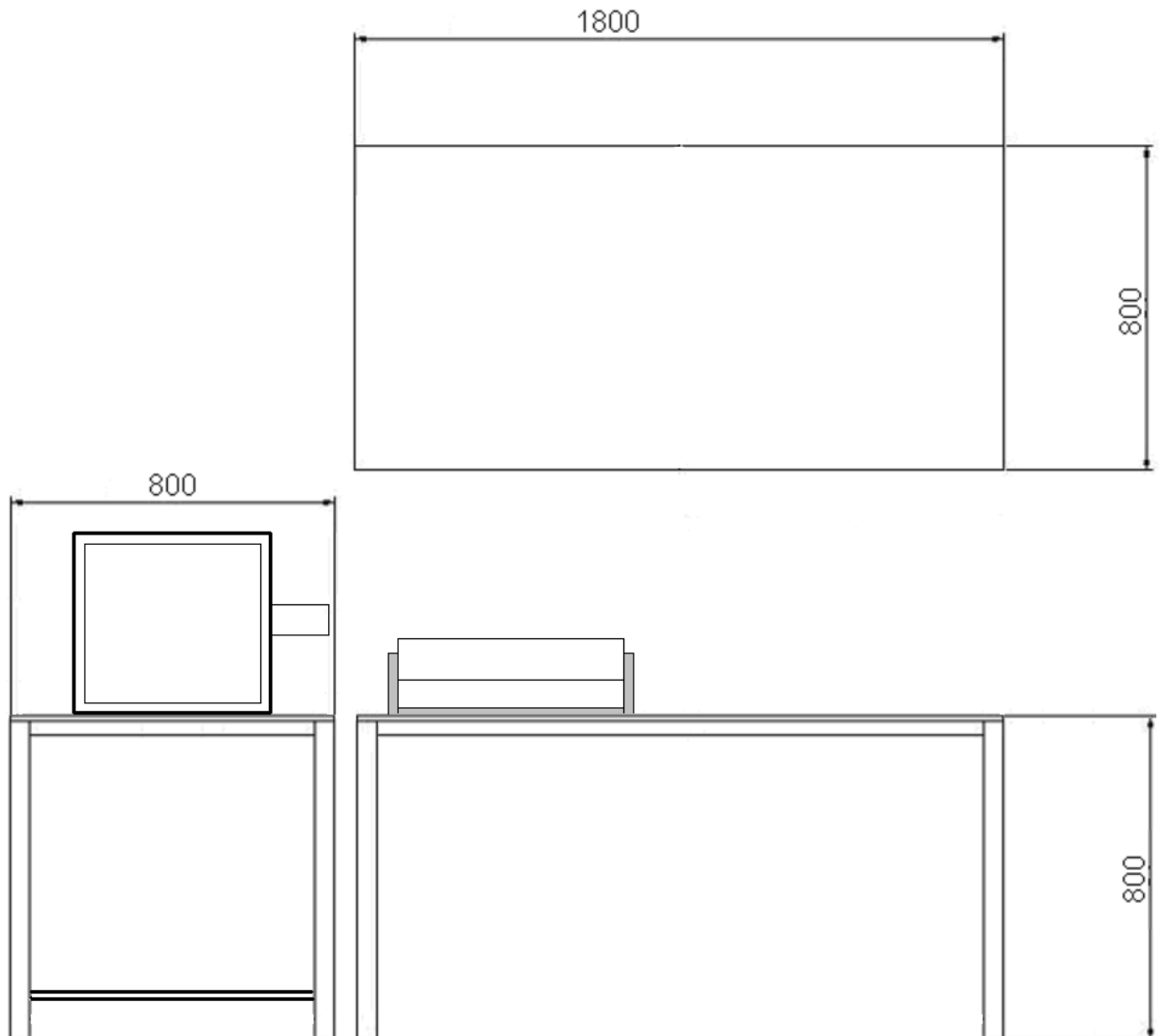


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4.SUPPLY

- 3 phase power supply 3*400V, +5%, -10%; 6.5A
- Frequency 50-60 Hz

5. DIMENSION



all dimensions in mm